

# Reclamation

## The Cornerstone of BLM's Oil and Gas Program

- What is Reclamation?
- What is the objective of Reclamation?
  - “The Long-term objective of final reclamation is to set the course for eventual ecosystem restoration, including the restoration of the natural vegetation community, hydrology, and wildlife habitats.”
  - “Operation Ghost” – Get in, get out, remain unseen. You and I were never here...



# Reclamation

## The Cornerstone of BLM's Oil and Gas Program

- So why should you care about Reclamation?
  - The entire oil and gas program in the BLM functions on the premise that all impacts are temporary.
- Reclamation – the Cornerstone of BLM's Oil and Gas Program



# Keys to Successful Reclamation

- How to achieve successful and cost efficient reclamation:
  - Plan upfront.
  - Implement plan in a timely manner.
  - Monitor.
  - Learn from experience & adapt.

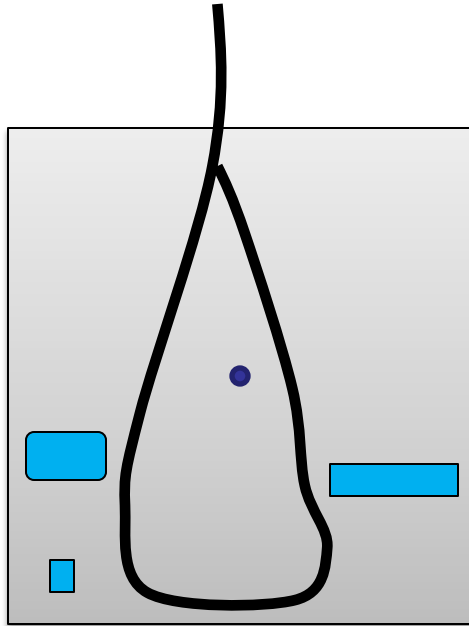


# Reclamation Planning

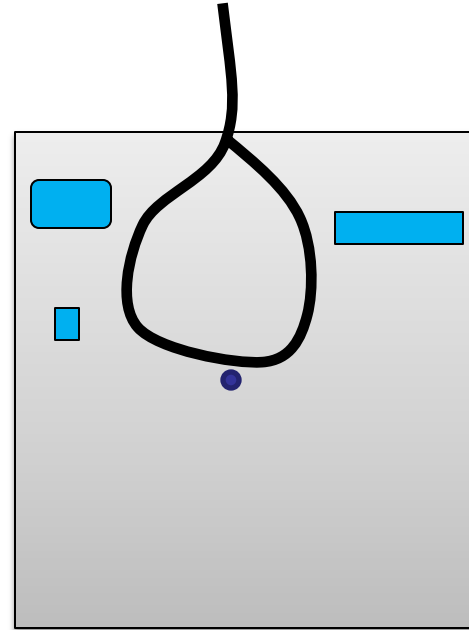
- Maximize Interim Reclamation Area & Time:
  - Plan facility locations accordingly.
  - Interim reclamation as soon as possible.
- Minimize Topsoil Stockpile Time:
  - Topsoil becomes less productive the longer it's stockpiled.



# Reclamation Planning – Facility Locations



Low Interim Reclamation Potential



High Interim Reclamation Potential

# Reclamation Planning - Soils

- Soils are the Foundation for Successful and Cost Efficient Reclamation
- Things That Can Degrade Soils Productivity:
  - Long stockpile time.
  - Erosion:
    - It takes thousands of years to recover lost topsoil.
  - Weeds:
    - Many change the way soil works and what can grow there.
  - Soil Compaction.



# Reclamation Planning - Vegetation

- Site Specific Planning:
  - It's okay to have a generic seed mix, but adjust it to make sense for each site.
- Diversity in the seed mix:
  - Include at least two species of:
    - Grass
    - Forb
    - Shrub



# Reclamation's Public Enemy #1 – Weeds

BLM

**WANTED**  
Dead, Not Alive



**HALOGETON**

Image obtained from: <http://www.uwyo.edu/ces/wyoweed/newwyoweedsite/descriptions/halogeton.htm>

Rock Springs Field Office





# Reclamation's Public Enemy #1 – Weeds

- What's Wrong with Weeds?
  - They degrade soil productivity making it difficult, if not impossible, for good vegetation to establish.
  - They don't protect soils from erosion very well.
  - They don't provide forage for wildlife or livestock.
  - They are very difficult to remove from a system once they're well established.
  - They destroy reclamation potential.



# Treating Weeds

- Mechanical Removal
- Biological Treatments
- Chemical Treatments:
  - Herbicide use on BLM land is restricted to approved Herbicides.
  - A Pesticide Use Proposal (PUP) must be filed with the BLM and approved prior to treatment.
- Whatever method you use, **Timing is Critical!**



# Reclamation – Implement Plan in a Timely Manner





# Reclamation - Monitor



# Reclamation – Learn from Experience & Adapt

“Insanity is doing the same thing over and over again but expecting different results.”

Rita Mae Brown

Group Discussion – Reclamation Lessons  
Learned



# Conclusion

- Reclamation is the cornerstone of BLM's oil and gas program.
- Planning for successful reclamation can save you time and money.
- Reclamation is a process (not an event) that starts when the first piece of equipment touches the soil.
- Weeds are bad.
- The BLM staff is available to help you with successful reclamation.

Thank You

